

7th Grade
May 21, 2021

Today we will:

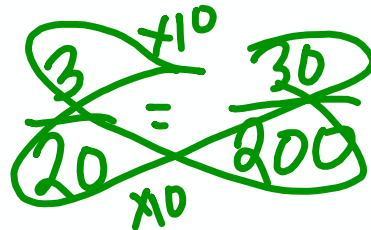
- Practice probability with M&Ms :)

HOMEWORK:

None

M&Ms activity: Listen to directions!

Failure to follow directions will result in a zero participation grade, multiple demerits, and possibly a trip to the office!



A handwritten green scribble consisting of several overlapping loops and lines. The numbers 3, 20, 10, 30, and 200 are written in green ink. The number 3 is at the top left, 20 is below it, 10 is to the right of 3, 30 is at the top right, and 200 is at the bottom right. There are also some horizontal lines and a small equals sign-like symbol in the center.

Unit 10 Lesson 7 Experimental Probability Activity

M&M Probability

Count how many M&Ms of each color you have in your bag and then count the total number of M&Ms



Blue: _____ Red: _____ Total: _____
 Green: _____ Yellow: _____
 Brown: _____ Orange: _____

Calculating Probability

$$= \frac{\text{Number of favorable outcomes}}{\text{Total number of outcomes}} \text{ OR } \frac{\text{Number of M\&Ms of one color}}{\text{Total number of M\&Ms}}$$

What are the odds?



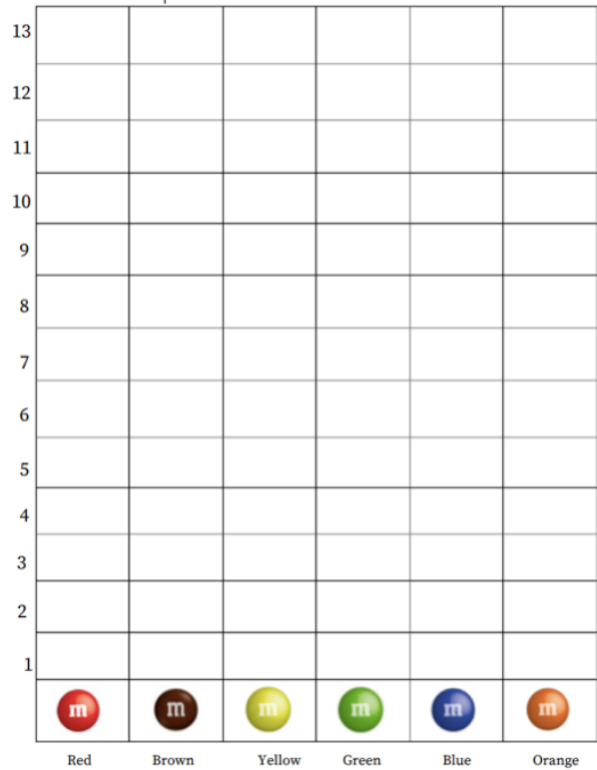
Probability of Selecting a Blue M&M = _____ Probability of Selecting a Red M&M = _____

Probability of Selecting a Green M&M = _____ Probability of Selecting a Yellow M&M = _____

Probability of Selecting a Brown M&M = _____ Probability of Selecting an Orange M&M = _____

Name _____

M&M Bar Graph



Using your numbers from the front of this sheet, answer the following. Write your probability as a fraction AND as a percentage. You may use a calculator. If needed, round to the nearest whole percent.

What is P(red or yellow)? _____ Is this likely or unlikely? _____

What is P(not blue)? _____ Is this likely or unlikely? _____

What is P (purple)? _____ Is this likely or unlikely? _____

What is P (brown or green)? _____ Is this likely or unlikely? _____

Given your probability of red M&Ms, about how many would you expect to be in a bag of 100 M&Ms?
 *Hint: Use a proportion to figure this one out.

$$\frac{\square}{\square} = \frac{\square}{\square}$$

I expect _____ red M&Ms.

$$\frac{3}{28} = \frac{x}{100}$$

Given your probability of yellow M&Ms, about how many would you expect to be in a bag of 200 M&Ms?

$$\frac{\square}{\square} = \frac{\square}{\square}$$

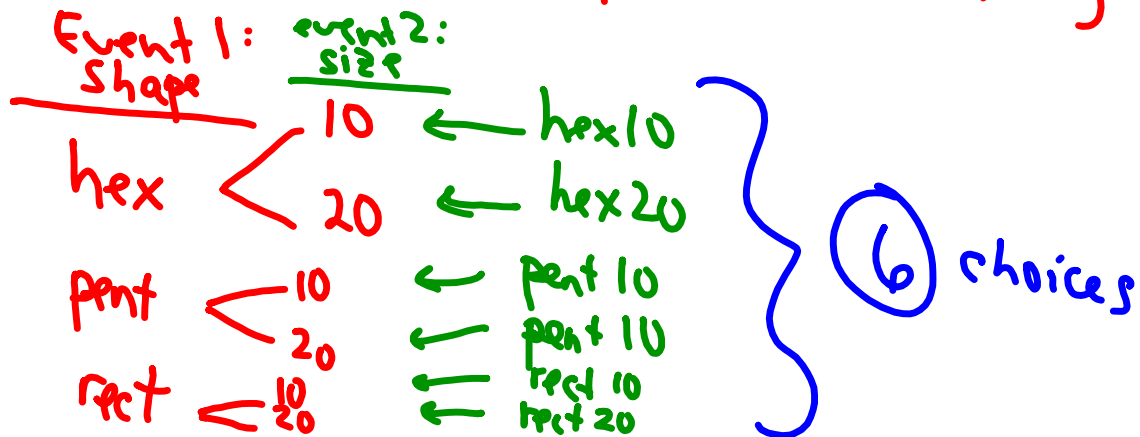
I expect _____ yellow M&Ms.



Compound events: 10-8 May 20

A pet store sells aquariums in three shapes, hexagon, pentagon, and rectangle, and two sizes, 10 gallons and 20 gallons. How many different fish tanks can be made from the different shapes and sizes?

Probability tree: Shows all possibilities of a compound event happening.

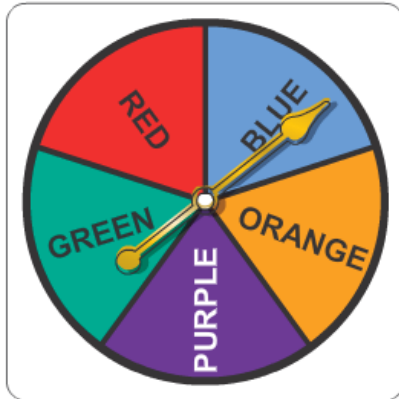


Students are assigned a temporary password the first time they visit the computer lab. Temporary passwords consist of a letter (A, B, or C), followed by a number (1 or 2), followed by a letter (X, Y, or Z). How many different temporary passwords are there?

* Fundamental Counting principle:
multiply the numbers of each possible outcome

$$3 \times 2 \times 3 = 18 \text{ passwords}$$

Lamar is going to spin each spinner once.
What is the probability that he will spin
red and the number 9?



To find
Probability of a compound
event: find probability
of each event and
then multiply them.

$P(\text{red})$

$P(9)$

$$\frac{1}{5} \times \frac{1}{10} = \frac{1}{50} \text{ or } 0.02 = 2\%$$

Toss a coin.

$$P(H, H, T)?$$

$$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \frac{1}{8}$$

Toss a coin, roll a die:

$$P(H, \text{and } 2 \text{ or } 3?)$$

↑ ↑
how many choices

$$\frac{1}{2} \times \frac{2}{6} = \frac{2}{12} = \frac{1}{6} = 17\%$$

$$\frac{\text{want} = \text{"favorable"}}{\text{total} = \text{"possible"}}$$